

DISCUSSION

Upon entry of the present amendment, Claims 1, 3, and 5-15 remain in the application, of which, Claims 1, 8, and 14 are independent.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Drawing Issues

Applicant notes for the record that the Examiner has not indicated whether or not the originally-filed drawings have been approved. Applicant respectfully requests formal confirmation from the Examiner that the drawings are approved for publication.

Amendments to the Specification

In the present amendment, paragraph [059] of the specification has been amended to correct an inadvertent descriptive error regarding the mounting of the bearings 38 to the case. Each of the bearings 38 is held at one of the respective case parts 21, 22, rather than at both as previously stated. No new matter is being added by this amendment, since it makes the description consistent with the drawings as originally filed.

Claim Amendments

Applicant has amended each of independent claims 1, 8 and 14 by the present amendment.

Claim 1 has been amended herein to further specify that the claimed transmission includes a slide mechanism arranged between said first rotatable shaft and said first rotatable member enabling said first rotatable member to be moved axially relative to its rotating center line, wherein said slide mechanism comprises an inner sleeve, an outer sleeve coaxially surrounding said inner sleeve, and a plurality of bearing elements disposed between said inner and outer sleeves.

Claim 8 has been amended herein to specify that the claimed slide mechanism comprises a ball spline mechanism, and claim 9 has been amended to add further details of the structure of the ball spline mechanism.

Claim 14 has been amended herein to specify that the derailleur shaft is formed with a slotted hole therein which functions as a guide part, to specify that the derailleur shaft has a cylindrical bore formed therein for receiving an operating element; and to specify that the operating element is substantially columnar and fits into the cylindrical bore of the derailleur shaft, wherein the operating element is provided for rotating pivotally moving the derailleur arm in respect to the derailleur shaft.

No new matter is being added by these amendments, since all the subject matter thereof was expressly or inherently disclosed by the original specification, including the drawings.

Applicant respectfully submits that the amended claims patentably distinguish the claimed invention from all of the references of record.

Section 102 Issues

In item 3 of the Office Action, the Examiner rejected claims 1, 7-8 and 13 under 35 USC 102(b) as anticipated by Kine, US 4,124,107. (Applicant notes for the record that the Office Action contained a typographical error, as the Kine reference was cited by name, but a different number was provided. Applicant's representative telephoned the Examiner on June 29, 2007, and was informed that the correct number for Kine should have been listed as 4,124,107.)

The applicant traverses this ground of rejection, and requests reconsideration and withdrawal thereof, in light of the present amendment.

Applicant respectfully suggests that the Kine reference discloses a multistage freewheel for bicycles, comprising a plurality of sprockets which are divided into at least a low speed stage and a high speed stage, which are independently rotatable with respect to a support. Each of the sprockets of Kine's freewheel apparatus is separately applied with a rotary resistance so that a single sprocket may be of less resistance, thereby securing safety in the operation of the bicycle.

Kine fails to teach, disclose or suggest a transmission apparatus in which a slide mechanism is arranged between a rotatable shaft and a rotatable member mounted on the shaft,

enabling the rotatable member to be moved axially relative to its rotating center line, wherein the rotatable member is connected to the rotatable shaft through the slide mechanism, wherein the slide mechanism comprises an inner sleeve, an outer sleeve coaxially surrounding the inner sleeve, and a plurality of bearing elements disposed between the inner and outer sleeves.

In item 4 of the Office Action, the Examiner rejected claims 1-2, 5-6, 8, 11-12 and 14-15 under 35 USC 102(b) as anticipated by Van Der Linde, US 2004/0014543.

The applicant traverses this ground of rejection, and requests reconsideration and withdrawal thereof, in light of the present amendment.

Van Der Linde discloses a compact housing with a crankshaft included therein, with a slidable sprocket disposed on the crankshaft and engaging, via the derailleur chain, a selected second sprocket located on a secondary shaft.

While the first (drive) sprocket of the Van Der Linde apparatus is axially slidable on the shaft, Van Der Linde fails to teach, disclose, or to render obvious applicants claimed structure including either a ball spline mechanism, or a slide mechanism including an inner sleeve, an outer sleeve coaxially surrounding the inner sleeve, and a plurality of bearing elements disposed between the inner and outer sleeves.

Applicant therefore requests reconsideration and withdrawal of the rejection of claims 1-2, 5-6, 8, 11-12 and 14-15 under 35 USC 102(b) as anticipated by Van Der Linde, in light of the present amendment.

Double Patenting Issues

In item 6 of the Office Action, the Examiner rejected claims 1-15 as unpatentable over the claims of U.S. patent 7,153,229 (Matsumoto et al.), on the ground of nonstatutory obviousness-type double patenting. The Examiner suggested that a terminal disclaimer could be filed to overcome this ground of rejection.

Applicant's Response

Applicant encloses herewith a signed Terminal Disclaimer to overcome the double patenting rejection. Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-15 as unpatentable over the claims of U.S. patent 7,153,229 (Matsumoto et al.) on the ground of nonstatutory obviousness-type double patenting.

Conclusion

As presently amended, all of the pending claims are believed to be allowable.

It is applicant's contention that no possible reading of the references, either singly or in any reasonable combination, can be viewed as teaching applicant's claimed invention.

For all of the above mentioned reasons, applicant requests reconsideration and withdrawal of the rejection of record, and allowance of the pending claims.

Applicant respectfully submits that all of the above amendments are fully supported by the original application. Applicant also respectfully submits that the above amendments do not introduce any new matter into the application.

Favorable consideration is respectfully requested.

Respectfully submitted,



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